Mercury (Hg) in the Great Salt Lake (GSL) Ecosystem

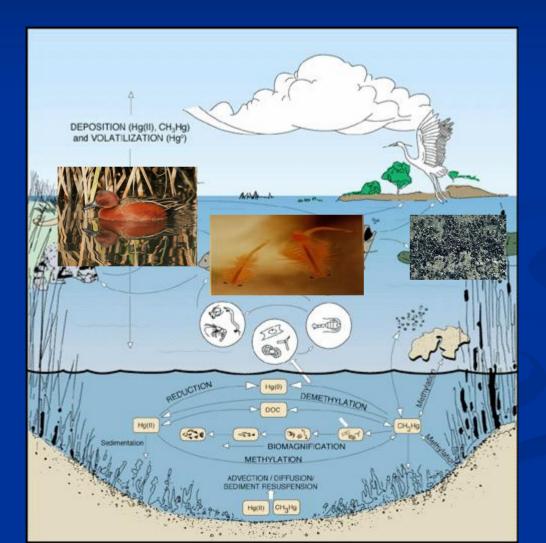




Jodi Gardberg Utah DEQ, Division of Water Quality

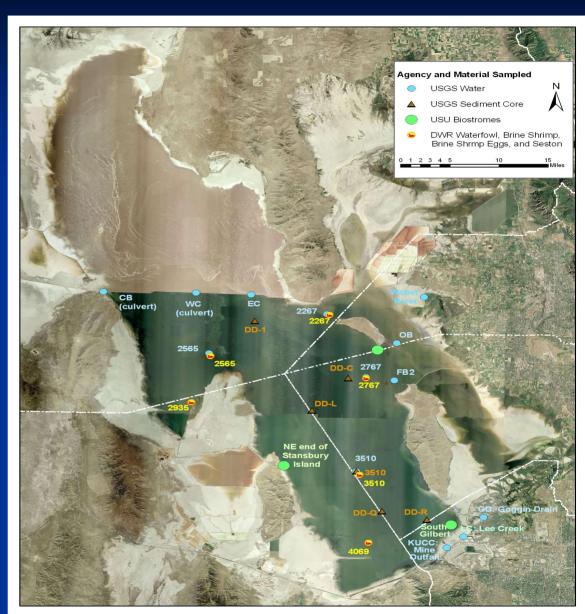
Assessment of Hg in the GSL Ecosystem 2007 Work plan

Assess Hg concentrations in the inflow, sediment, water column, avian tissues and food-chain biota



Mercury in the Water Column and Sediment

- Hg in the inflow and water column
 - Dave Naftz,US GeologicalSurvey
- Hg in the sediment
 - Dave Naftz,US GeologicalSurvey



Mercury in the Avian Diet

- Hg in Brine Shrimp and Brine Shrimp Cysts
 - Jaimi Butler, Great Salt Lake Ecosystems Project, Division of Wildlife Resources
- Hg in Brine Fly Larvae and Pupae
 - Wayne Wurtsbaugh, Utah State University
- Hg in the Seston
 - Wayne Wurtsbaugh, Utah State University





Mercury in the Avian Species

- Hg in Cinnamon Teal
 - John Neil, Great Salt
 Lake Ecosystems Project,
 Division of Wildlife
 Resources
 - Chris Cline, US Fish and Wildlife Service
- Hg in Northern Shovelers
 - John Neil, Great Salt
 Lake Ecosystems Project,
 Division of Wildlife
 Resources





Mercury in the GSL Wetlands and Farmington Bay

- Hg in Plants and Macroinvertebrates
 - Theron Miller, Division of Water Quality
- Hg in the Water Column and Sediments
 - Dave Naftz, USGeological Survey



Funding

\$66,000 from DEQ Restricted Account – One time FY2007 appropriation

\$87,000 from EPA RGI grant

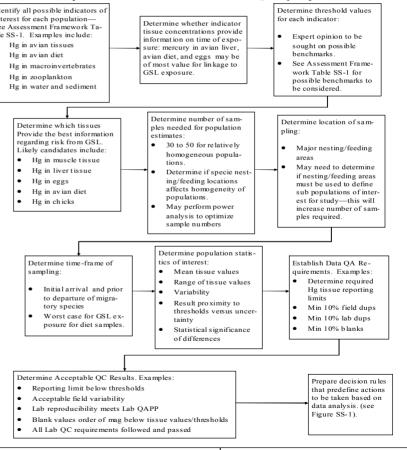
\$53,000 from EPA WPDG grant

\$70,000 additional monies from EPA

\$283,000 Total to Date

Are avian species at risk from Mercury exposure associated with the Great Salt Lake?

DRAFT GSL Avian Ecological Risk From Hg Bioaccumulation Logic Diagram Step 2: Evaluate Scoping or Step 1: Define Question of Existing Information Interest Scoping data indicate elevated surface water and avian tissue concen-Are avian populations using GSL at risk trations. Further study warranted to ecologically due to HG exposure from determine ecological implications Step 3: Define Study Boundaries Assessment applies to all sub-areas of GSL. Expert advise to be sought for selection of a vian species of interest. Step 4: Define Assessment Methods/Data Quality Objectives Identify all possible indicators of Determine threshold values interest for each populationfor each indicator: Determine whether indicator see Assessment Framework Tatissue concentrations provide ble SS-1. Examples include: Expert opinion to be information on time of expo-Hg in av ian tissues sought on possible sure: mercury in avian liver, Hg in av ian diet henchmarke avian diet, and eggs may be See Assessment Frame-



DQOs Process Complete and Documented